

**REMARKS**

Claims 1-15 are pending in this application. By this Amendment, claims 1 and 6 are amended. No new matter is added. Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

The Office Action rejects claims 1-5 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,806,982 to Newswanger et al. (hereinafter "Newswanger"). Additionally, the Office Action rejects claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Newswanger in view of U.S. Patent Application Publication No. 2003/0117615 to Mui; and rejects claims 9-15 under 35 U.S.C. §103(a) as being unpatentable over Newswanger, in view of Mui and U.S. Patent Application Publication No. 2001/0013959 to Long. These rejections are respectfully traversed.

The Office Action asserts that Newswanger teaches the combination of all of the features positively recited in independent claim 1, and many of the features as positively recited in independent claim 6. However, Newswanger cannot reasonably be considered to teach, or to have suggested, making  $(N+1)$  levels of gradation exposure by the object beam with a single exposure time  $t_1$  given by dividing  $t_0$  by  $N$ , where  $t_0$  is an exposure time necessary for exposing an area of the recording layer corresponding to a single pixel of the data page as much as approximately 100%, and  $N$  is an integer of not less than 2, and exposing the area as much as approximately 100% by exposure of  $N$  times, as much as 0 by exposure of 0 times, and as much as over 0 and under 100% by exposure of between 1 and  $(N-1)$  times.

Newswanger teaches, in col. 7, lines 5-10, that, when using a spatial light modulator ("SLM") in hologram patterning, a first exposure is created using "white" light, or a signal carrying no data, and the second exposure is created using the desired image, or a signal carrying the desired data. Here, Newswanger teaches, that when employing SLM, only a

single exposure by an object beam carrying data is performed. In other words, Newswanger teaches only an N of 1, because only one exposure with data is performed, and a preliminary exposure with no data, or "white light" is performed.

The Office Action asserts that Newswanger teaches a holographic recording method or spatial light modulator micromirror device as positively recited in pending claims 2 and 7. However, this assertion is incorrect. As discussed above, Newswanger cannot reasonably be considered to teach, or to have suggested, a holographic recording method or spatial light modulator as positively recited in the pending claims.

The Office Action asserts that Newswanger teaches a single exposure time  $t_1$  given by dividing  $t_0$  by N, where  $t_0$  is an exposure time necessary for exposing an area of the recording layer corresponding to a single pixel of the data page as much as approximately 100% as positively recited in claims 1 and 6, and with respect to claims 3-5 and 8-15. However, this assertion is incorrect. Newswanger, as discussed above, teaches two separate periods for SLM patterning, including a first "white" image and a second image carrying data. As these are pre-patterning and patterning exposures, and not multiple stages of a single patterning exposure, the time period associated with each of these pre-patterning and patterning stages cannot reasonably be considered to teach, or to have suggested, the time periods of  $t_0$  and  $t_1$  as positively recited in the pending claims.

Further, Mui and Long fail to overcome the deficiencies as discussed above.

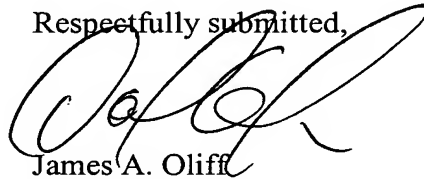
For at least the above reasons, none of Newswanger, Mui or Long can reasonably be considered to teach, or to have suggested, the combinations of all of the features positively recited in independent claims 1 and 6. The above references also cannot reasonably be considered to teach, or to have suggested, the combinations of features positively recited in claims 2-5 and 7-15, at least for their dependence on allowable claims 1 and 6 as discussed above, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-15 under 35 U.S.C. §§102 and 103 are respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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